A DISCOURSE tending to prove at what Time and Place, Julius Cesar made his first Descent upon Britain: Read before the Royal Society by E. HALLEY.

Hough Chronological and Historical Matters, may not seem so properly the Subject of these Tracts, yet there having, in one of the late Meetings of the Royal Society, been some discourse about the Place where Julius Cesar Landed in Britain, and it having been required of me to shew the Reasons why I concluded it to have been in the Downs; in doing thereof, I have had the good fortune so far to please those worthy Patrons of Learning I have the honour to serve, that they thought sit to command it to be inserted in the Philosophical Transactions, as an instance of the great Use of Astronomical Computation for sixing and ascertaining the Times of memorial Actions, when omitted or not duly delivered by the Historian.

I. The Authors that mention this Expedition with any Circumstances, are Cesar in his Commentaries lib. 4, and Dion Cassius in lib. 39; Livy's account being lost, in whose 105th Book, might possibly have been found the story more at Large. It is certain that this Expedition of Cesar's, was in the Year of the Consulate of Pompey, and Crassus, which was in the Year of Rome 699. or the 55th before the usual Era of Christ: and as to the time of the year, Cesar says that Exigua parte assays reliqua, he came over only with two Legions, viz. the 7th and 10th, and all Foot, in about 80 Sail of Merchant

chant Ships, 18 Sail that were ordered to carry over the Horse, not being able to get out at the same time from another Port, where they lay Wind-bound. fays that he arived about the Fourth hour of the Day, viz. between Nine and Ten in the Morning, on the Coast of Britain, where he found the Enemy drawn up on the Cliffs ready to repel him, which place he thus describes; Loci hac erat natura, adeo montibus angustis mare contenebatur ut ex locis superioribus in littus telum adjici posht, by which the Cliff's of Dover and the South Foreland, are justly described, and could be no other Land, being he says in the 5th. Book of his Commentaries, in Britanniam trajectum esse cognoverat circiter millium passuum triginta à continenti, the Clissis of the North-Foreland being at a much greater distance. Here he says he came to an Anchor, and staid till the 9th. hour, or till about between Three and Four in the Afternoon, expecting till his whole Fleet was come up; and in the mean time called a Council of War, and advertised his Officers, after what manner they were to make their Descent, particularly in relation to the Surf of the Sea. whose motion he calls celerem atq; instabilem, quick and Then, viz. about Three in the Afternoon he weighed Anchor, and having gotten the Wind and Tide with him, he Sail'd about Eight Miles from the first place, and Anchor'd against an open and plain Shore.

2. Here he made his Descent, and having told us the opposition that was made, and the means he used to get on shore, he comes to say, that after he had been Four Days in Britain, the 18 Ships with his Horse put to Sea; and were come in sight of his Camp, when a sudden Tempest arose, with contrary Wind, so that some of the Ships put back again, others were driven to the Westwards, not without great danger, and coming to Anchor, they sound they could not ride it out: so when Night came on, they put off to Sea and return-

ed from whence they came. That same Night it was Full-Moon, which makes the greatest Tides in the Ocean, and they being ignorant thereof, their Galleys, which were drawn on shore, were filled by the Tide, &c.

3. Then he fays that the day of the Autumnal Equinox being at hand, after some days stay, wherein there passed no Action because he kept close in his Camp by the shore; and not thinking it proper to stay till the Winter came on, he returned into Gallia: The next vear he made a further Expedition with 5 Legions and a good Body of Horse, but there is but little in the History thereof ferving to our purpose, excepting that he says he set Sail from the Portus Icius about Sun-Set, with a gentle S. W. Wind, leni Africo profectus; that about Midnight it fell Calm, and being carried away with the Tide, by the time it was day, he found he had left Britain on the left hand; but then the Tide turning, they fell on their Oars, and by noon reached that part of the Island where he Landed before, and came on shore without opposition, and then marched up into the Country, leaving his Ships at Anchor in littore molli & aperto.

4. This is all in Cefar that is any thing pertinent, and I find no where else any thing to guide us farther, except one passage in Dion Cassius, who speaking of the first Landing of Cejar, says & μέντωι κὰ ἢ ἔδει πεσσέζεν, that is, as I Translate it; But he Landed not where he intended, for that the Britains hearing of his coming, had possessed all usual places of Landing, *Ακεαν οῦν τινα περέχεσαν ωξιπλούσας ἐτέρωσε παρεκομίωλη. Κ'ανταῦδα τὸς περσμίζαντας οἱ ἐς τὰ πενάχη δποθαίνοντη νεκόσας, ἔφολη τῆς χῆς κεστήσας; in my English; Wherefore doubling a certain head Land, he made to the shore on the other side, where he overcame those that Skirmished with him at the waters edge, and so got well on

Land. Here I make bold to translate the Words ες τὰ τενάχη, at the waters edge, which in H. Stephens Edition is interpreted in paludibus; but I have the Authority of Suidas, who says τέναχως πελαχία ιλύς, or the Sea Mud, and is therefore properly the Ouse on the Sea Shore, and by an easie Figure may be put for the shore itself, where such Ouse commonly is found.

5. From these data, That it was in the Year of the Consulate of Pompey, and Crassus; That it was Exiguâ parte æstatis religuâ, and Four Days before a Full-Moon. which fell out in the night time, the time of this Invafion will be determined to a day: For by the Eclipse of the Moon, whereof Drusus made so good use to quiet a Mutiny in the Pannonian Army, upon the News of the Death of Augustus, it follows that Augustus Died Anno Christi 14. which was reckoned Anno Urbis conditæ 767. and that this Action was 68 Years before, viz. in the 55th. Year before Christ Current. In which Year the Full Moon fell out August 30. after Midnight, or 31 in the Morning before day; and the preceding Full-Moon. was August 1. soon after Noon; so that this could not be the Full Moon mentioned, as falling in the day time: nor that in the beginning of July, it being not 10 days after the Summer folftice, when it would not have been faid exiguâ parte æstatis reliquâ. It follows therefore that the Full Moon spoken of, was on August 30. at Night, and that the Landing on Britain was August 26. in the Afternoon, about a Month before the Autumnal equinox; which agrees to all the Circumstances of the Story in point of Time.

6. As to the Place, the high Land and Cliffs described, could be no other than those of *Dover*, and are allowed to have been so by all, it remains only to examine whether the descent was made to the Northward or Southward of the place where he first Anchored. The data to determine this, are first that it was Four days

before

before the Full Moon. 2. That that day by Three of the Clock in the Afternoon the Tide ran the fame way he Sail'd. 3dly. That a S. by E. Moon makes High-Water on all that Coast, the Flood coming from the Southward: hence it will follow, that that day it was Highwater there about Eight in the Morning, and confequently Low-water about Two, whereof by Three the Tide of Flood was well made up, and it is plain that Cefar went with it, and the Flood fetting to the Northward shews that the open Plain shore where he Landed was to the Northward of the Clifts, and must be in the Downs; and this I take to be little less than Demonstration. A fecond argument is drawn from the Wind wherewith he fet out on his fecond Expedition, viz. S. W. as appears by the words leni Africo Profectus, with which the Navigation of those times would hardly permit a Ship to Sail nearer the wind than eight Points, or a N. W. Courfe; which would ferve indeed to go into the Downs, but would by no means fetch the Lowland towards Dengyness, which is much about West from Calais, and not more than W. N. W. from Boulogne, if it shall be said that that was the Portus Icius from which Cesar set out. Whence I take it to be evident that if Cefar was not bound more Northerly than the South-Foreland, he could not have thought the Africus or S. W. Wind proper for his passage, which was then intended for the place where he first Landed the year before.

7. Justly to determine which the Portus Icius was, I find no where sufficient grounds; only Ptolemy calls the Promontory of Calais-Cliffs by the name of Inuov aneov, whence there is reason to conjecture, that the Portus Icius was very near thereto, and that it was either Ambleteuse on the one side, or Calais on the other. The same Ptolemy places Γυσορβίακου Επίνειου in the same Latitude with the inuov aneov, but something more to the East, which seems to resute those that have supposed the an-

cient Port of Gessoriacum to have been Boulogne, whereas by Ptolemy's position, it must be either Dunkirk or Graveling, but the former most likely, both by the distance from the "Incov aneov, being about 20 Miles or half a degree of Longitude to the East, or 3 of the whole Coast of Flanders, which he makes but a degree and quarter from the Acron Icion to the mouth of the Scheld which he calls Oftria Tabudæ: as also for that Pliny 1. 4. c. 16. speaking of Gessoriacum, fays the Proximus Trajectus into Britain, from thence is 50 Miles, which is too much unless Gestoriacum were something more Easterly than Calais: Dion Cashus makes the distance between France and Britain 450 stadia or 56 Miles, and says likewise 'tis the nearest, 70 συντομώτωτον. But this is in part amended by the explication given in the Itinerary of Antoninus, where the space between Gessoriacum and Rutupium is said to be 450 stadia, (for this was the ordinary passage of the Romans into Britain,) Rutupium being more Northerly and Gessoriacum more Easterly than the termini of Cefar's Voyage, and consequently the distance greater than 30 Miles, which Cesar had observed: and now lately an accurate Survey has proved the distance between Land and Land to be 26 English Miles or 28; Roman Miles, which shews how near Cefar's estimate was to the truth.

A farther Argument (but not of equal force with the former, because of the modernness of the Author, who writ above 250 years after) may be drawn from the words of Dion Cassius, where he says anear near week year alternation, that after his first Anchoring he Sailed about a Promontory to the place where he Landed: now there are no other Promontories on all that Coast but the South-Foreland and Dengyness; the latter of which it could not be, because Cesar says he Sail'd but 8 miles, and the Ness it self is about 10 Miles from the South and nearest end of the Chalk-Cliffs by the Town

of Hithe; and to have gone round that Point to the other fide, the distance must have been much greater. So that the Promontory spoken of by Dion, must needs be the South-Foreland, and Cefar must Anchor near over against Dover, from whence Sailing 8 Miles, he would double a Head-land and come to the Downs; which is such a Coast as he describes in one place by apertum ac planum littus, and in his 5th Book by molle ac apertum littus. As to Dion's word ele The Trya'm, what I have already faid about it feems fufficient to prove that he means no more than the waters edge, and the Etymologists derive it from 7270 madefacio, because the wash and breach of the Sea does always keep it wet. this word no revays is used by Polybius for the Sea Ouse; and in another place he speaks of the difficulty of Landing at the mouth of a River da T Tryazudh maeodov. ob limosum accessum, so that it is not to be doubted that it ought to be rendred in this place, ad vadum maris rather than in paludibus. And so this objection against the affertion that Cefar Landed in the Downs, which is known to be a firm Champain Country without Fenns and Morasses, will be removed; and the whole Argument will 'tis hoped be admitted by the Curious.

A Receit for the Curing of Castorium, according to the method us'd in Russia.

Ake the Beaver Stones and get the Milk out of them as clear as you can, then fet upon the Fire a Skillet or Kettle with water, big enough to contain the quantity of Stones you have to cure: let the water Boil, and put into it half a shovel full of clean Wood Ashes, then tie the Stones together in couples and put them into the water, and let them Boil therein for half a quarter of an Hour. Then take some Birch-Bark and lay it on

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